GOVERNMENT OF INDIA
ATOMIC ENERGY
LOK SABHA

UNSTARRED QUESTION NO:185
ANSWERED ON:16.11.2016
Safety of Nuclear Power Plants
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Will the Minister of ATOMIC ENERGY be pleased to state:

(a)the measures taken to ensure safety of the nuclear power plants in the country;

(b)the details of the mechanism put in place to monitor the safety parameters of all the nuclear plants;

(c)the details of the shore protection measures undertaken for the safety of the atomic power stations located near the sea coast;

(d)whether these protection measures are reviewed and retested on regular basis under different technical parameters keeping in view the geographic locations in the country; and

(e)if so, the details thereof?

Answer

THE MINISTER OF STATE FOR PERSONNEL, PUBLIC GRIEVANCES & PENSIONS AND PRIME MINISTER'S OFFICE (Dr. JITENDRA SINGH):

(a)At all nuclear power stations, state of the art safety measures are provided based on principles of redundancy (more numbers than required) and diversity (safety systems operating on different principles). These include fail safe shutdown system to safely shutdown the reactor, combination of active and passive systems (working on natural phenomena and not needing motive power or operator action), cooling systems to remove the heat from the core at all times and a robust containment to prevent release of radioactivity in all situations. In addition, all nuclear power plants are designed to withstand extreme natural events like earthquake, flooding, tsunami etc.

(b)A multi-tier safety mechanism comprising safety review committees within Nuclear Power Corporation of India Limited (NPCIL) and safety review committees in the regulatory authority (Atomic Energy Regulatory Board- AERB) is in place to monitor the safety of nuclear power plants. In addition, a framework of periodic safety reviews, audits and inspection is in place, for ensuring safety.

(c)Nuclear power plants in coastal areas are designed taking into account the technical parameters related to earthquakes, tsunamis, storm surges, floods, etc. at each site. Shore protection measures are provided to prevent erosion and to reduce impact of the waves, both during normal sea conditions and during events like storms, tsunamis etc. These include civil structures like bunds, break waters, walls etc.

(d) & (e) Yes, Sir. Surveillance of these protection measures is carried out periodically. Based on the inspections of the measures and national / international feedback in this regard, necessary maintenance / strengthening of the structures is carried out.
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